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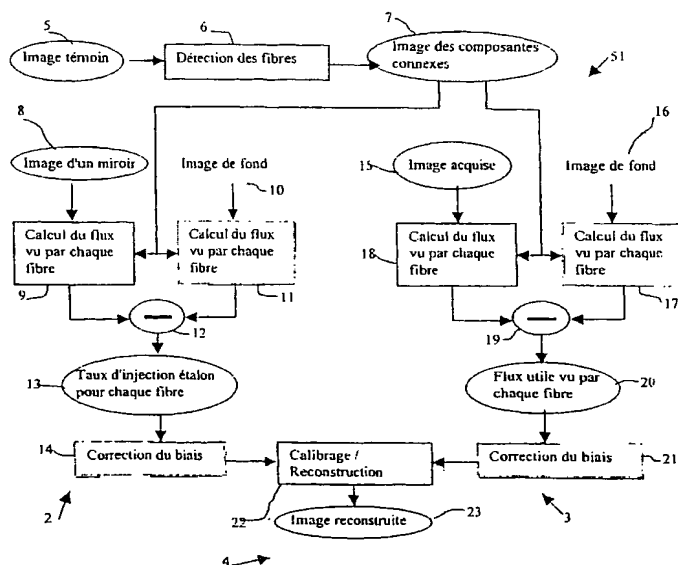
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[Suite sur la page suivante]

(54) Title: METHOD FOR PROCESSING AN IMAGE ACQUIRED THROUGH A GUIDE CONSISTING OF A PLURALITY OF OPTICAL FIBERS

(54) Titre : PROCÉDE DE TRAITEMENT D'UNE IMAGE ACQUISE AU MOYEN D'UN GUIDE COMPOSE D'UNE PLURALITE DE FIBRES OPTIQUES



- 5...TARGET
- 6...FIBER DETECTION
- 7...RELATED COMPONENT IMAGE
- 8...MIRROR IMAGE
- 9, 11, 17, 18...CALCULATING FLUX VIEWED BY EACH FIBER
- 10, 16... BACKGROUND IMAGE
- 13...SAMPLE INJECTION RATE FOR EACH FIBER
- 14, 21...BIAS CORRECTION
- 15...ACQUIRED IMAGE
- 20...FLUX VIEWED BY EACH FIBER
- 22...CALIBRATION/RECONSTRUCTION
- 23...RECONSTRUCTED IMAGE

(57) Abstract: The invention concerns a method for processing an image acquired through a guide consisting of a plurality of optical fibers. The invention is characterized in that it consists, for each optical fiber, in isolating on the acquired image a zone corresponding to said optical fiber, in locally processing each zone individually to correct the photon flux detected in each optical fiber, then in reconstructing the acquired image by eliminating the pattern caused by the optical fiber. The method also comprises a sampling process for obtaining, for each optical fiber and from a sampling image, a sample injection rate which can be used for reconstructing the acquired images. The invention also includes a prior step which consists in detecting the fibers from a target.

(57) Abrégé : L'invention concerne un procédé de traitement d'image acquise au moyen d'un guide constitué par une pluralité de fibres optiques. Selon l'invention, pour chaque fibre optique, on isole sur l'image acquise une zone correspondante à cette fibre optique, on traite localement chaque zone de façon individuelle pour corriger le flux de photon détecté dans chaque fibre optique, puis on reconstruit l'image acquise en éliminant le motif dû aux fibres optiques. Le procédé comprend également un processus d'étalonnage permettant

[Suite sur la page suivante]

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En ce qui concerne les codes à deux lettres et autres abréviations, se référer aux "Notes explicatives relatives aux codes et abréviations" figurant au début de chaque numéro ordinaire de la Gazette du PCT.

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR 03/02197

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G06T5/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G06T

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 97 42600 A (ANDROMIS S A) 13 November 1997 (1997-11-13) abstract page 4, line 1 - line 24 page 6, line 16 -page 7, line 6	1-34
A	US 5 257 100 A (IKUNO YUJI ET AL) 26 October 1993 (1993-10-26) abstract column 1, line 56 -column 2, line 23 column 6, line 1 -column 7, line 25 --- -/--	1-34

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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## INTERNATIONAL SEARCH REPORT

International Application No.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>CHAO ZHANG ET AL: "Nonlinear distortion correction in endoscopic video images" IEEE TRANSACTIONS ON MEDICAL IMAGING, vol. 2, 10 September 2000 (2000-09-10), pages 439-442, XP010530017 abstract page 439, paragraph 2 page 440, paragraph 3; figure 3 -----</p>	1-34

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR 03/02197

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9742600	A	13-11-1997	WO 9742600 A1	13-11-1997
			US 6157748 A	05-12-2000
			US 5878159 A	02-03-1999
US 5257100	A	26-10-1993	JP 4138127 A	12-05-1992

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